

7. (Amended) The resolver using a sheet coil as set forth in any one of Claims 1 through 3, wherein the radius r_2 of the extremely outer conductor of said rotary transformer secondary side pattern and radius r_1 of the extremely outer conductor of said rotary transformer primary side pattern is established so as $0 < r_2 - r_1 \leq 4 \times \lambda_2$ or $0 < r_1 - r_2 \leq 4 \times \lambda_1$ where the pattern pitch of the rotary transformer secondary side pattern is λ_2 and the pattern pitch of the rotary transformer primary side pattern is λ_1 .

8. (Amended) The resolver using a sheet coil as set forth in any one of Claims 1 through 3, wherein the outer diameter of said resolver excitation phase pattern is made larger than the outer diameter of the resolver detection phase pattern while the inner diameter of the resolver excitation phase pattern is made smaller than the inner diameter of the resolver detection phase pattern, or the outer diameter of the above-described detection phase pattern is made larger than the outer diameter of the above-described excitation phase pattern while the inner diameter of the detection phase pattern is made smaller than the inner diameter of the excitation phase pattern.

9. (Amended) The resolver using a sheet coil as set forth in any one of Claims 1, 2 and 3, wherein, where the pattern pitch of the resolver detection phase pattern is λ_θ , and the pattern pitch of the solver detection phase pattern is λ_α , the radius $r_{\theta o}$ of the extremely outer conductor of the resolver excitation phase pattern and the radius $r_{\alpha o}$ of the extremely outer conductor of the rotary transformer primary side pattern, or the radius $r_{\theta i}$ of the extremely inner conductor of the resolver

excitation phase pattern and the radius r_{ai} of the extremely inner conductor of the rotary transformer primary side pattern are established so as to become

$$0 < r_{ao} - r_{\theta o} \leq 4 \times \lambda_{\alpha}$$

and

$$0 < r_{\theta i} - r_{ai} \leq 4 \times \lambda_{\alpha}$$

or

$$0 < r_{\theta o} - r_{ao} \leq 4 \times \lambda_{\theta}$$

and

$$0 < r_{ai} - r_{\theta i} \leq 4 \times \lambda_{\theta}$$